



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,141	08/09/2000	Mitsunori Nodono	Q60353	5577

7590

04/03/2003

Sughrue Mion Zinn MacPeak & Seas  
2100 Pennsylvania Avenue NW  
Washington, DC 20037

EXAMINER

COLE, ELIZABETH M

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 04/03/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/635,141		Applicant(s) NODONO ET AL.	
Examiner Elizabeth M Cole		Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8</u> . | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1771

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 6-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for the reasons set forth in paragraph 2 of paper no. 6.
3. Claims 3,6,8,12, 23-31 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al, U.S. Patent NO. 5,180,751 for the reasons of record in paragraph 6 of paper no. 2.
4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al as applied to claims 3,6,8,12, 23-31 and 48 above, and further in view of DE 2,532,406. Parks does not teach that the folded material maybe cut, folded and bonded to each other. DE 2,532,406 teaches that sheets of foam may be folded and bonded to each other in order to form laminated foams. Therefore, it would have been obvious to have folded the foams of Parks rather than cutting the layers and then bonding them. One of ordinary skill in the art would have been motivated to fold and bond rather than cut because DE 2,532,406 teaches that this is an alternative and known method of making a bonded foam material and because this would avoid the step of cutting the foam, thereby reducing costs by simplifying the process.
5. Claims 9-11, 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al as applied to claims 3,6,8,12, 23-31 and 48 above, and further in view of Kelch, U.S. Patent No. 5,000,992. Park et al teaches a multilayered foam laminate which may comprise gas barrier

Art Unit: 1771

layers. Park et al does not teach laminating the foam laminate to additional preformed layers.

Kelch teaches that multi-layered foam materials may be laminated to additional materials including foils, films, and combinations thereof. See col. 4, lines 44-61. These materials would inherently act as a gas barrier layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have laminated the material of Park et al to additional layers as taught by Kelch. One of ordinary skill in the art would have been motivated to bond the Park et al structure to additional layers as taught by Kelch in order to further enhance the properties of the multi-layered material.

6. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al as applied to claims 3,6,8,12, 23-31 and 48 above, and further in view of Shirai et al, U.S. Patent No. 4,626,183.

Park et al does not teach the step of introducing the extrudate into a vacuum chamber. Shirai et al teaches that the step of introducing the extrudate into a vacuum chamber enhances the expansion of the foam. See col. 1, lines 8-30. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have introduced the extrudate into a vacuum chamber as taught by Shirai et al, motivated by the expectation that this would enhance the expansion of the foam.

7. Applicant's arguments filed 1/29/03 have been fully considered but they are not persuasive. Applicant argues that the claims while broad are not indefinite because the specification describes many different embodiments. However, the rejections have been maintained because while

Art Unit: 1771

breadth is not indefiniteness, the claims as currently presented are vague and indefinite because the method steps do not set forth the metes and bounds of the claim. Thus, to recite a laminating step with out reciting what is being laminated is indefinite because they do not adequately define the invention. It is not clear whether the material is being laminated to itself or to another element which is not recited. With regard to a folding step, it is not clear how the folds are formed, i.e., where is the fold located, which side is folded towards itself, how many folds are formed, etc, and thus the method is not clear. With regard to the cylindrical die, Applicant asserts that it would be clear to one of ordinary skill in the art that a hollow cylinder would be formed so that it could be laminated, but it is not clear why a solid cylinder could not be split and laminated.

Applicant argues with regard to claim 3 that Park et al does not suggest that it is necessary to select the dimensions of the extrusion die and the amount of resin to be extruded in order to satisfy the formula specified in claim 3. However, since the die lip diameter will directly affect the final size and shape of the product and since the amount of resin which can be extruded at a given time is directly related to the size the die lip diameter, it is the examiner's position that the selection of the optimum die lip diameter and thus, necessarily, the amount of resin which can flow through the extrusion die, would have been obvious to one of ordinary skill in the art at the time the invention was made through the process of routine experimentation.

With regard to claim 6, Applicant argues that Park et al do not disclose or suggest the lamination of a multilayer foamed sheet itself or lamination of two or more multilayer foamed

Art Unit: 1771

sheets. However, laminating is defined as making by bonding several layers. Therefore, Park et al teaches laminating.

With regard to claim 7, the arguments are moot in view of the new ground of rejection.

With regard to claims 9-11, 13-18, the argument is moot in view of the new ground of rejection.


With regard to claims 19-20, the arguments are moot in view of the new grounds of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (703) 308-0037. The examiner may be reached between 6:30 AM and 5:00 PM Monday through Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (703) 308-2414.

Inquiries of a general nature may be directed to the Group Receptionist whose telephone number is (703) 308-0661.

The fax number for official faxes is (703) 872-9310. The fax number for official after final faxes is (703) 872-9311. The fax number for unofficial faxes is (703) 305-5436.

  
Elizabeth M. Cole  
Primary Examiner  
Art Unit 1771

e.m.c  
April 1, 2003